

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Anthony Mazarakis                      Art Unit : Unknown  
Serial No. : New Application                      Examiner : Unknown  
Filed : February 15, 2002  
Title : EXCHANGEABLE TRANSDUCER DIAPHRAGM

Commissioner for Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Prior to examination, please amend the application as follows:

In the abstract:

Replace the abstract with the following version.

A thin diaphragm of elongated two binary interlaced coil electroacoustic transducers includes a field replaceable sound emitting diaphragm without the need to manipulate wires. The diaphragm includes a magnetic system, a thin foil diaphragm, and a diaphragm sound emitting assembly.

The magnetic system includes an upper plate pole, two side poles, a central pole and a row of Neodymium magnet bars. Two air gaps are formed between the upper plate pole and central pole. The magnetic lines transverse the gap and create a high density field. The thin foil diaphragm carries thin aluminum conductors formatting at least one binary interlaced coil, one being built into each other, and which are situated substantially in the plane of the magnetic lines transversing the air gap. The conductors of the diaphragm are crossed by the same intensity of flux lines perpendicularly, at the totality of their length, where, the application of  $F=BLi$  gives the same force  $F$ . The diaphragm sound emitting assembly includes a frame made of non-ferrous sheet metal, on which is tensioned a vibratable very thin diaphragm of high temperature polymer on which are formatted a multiplicity of two elongated coils and of aluminum foil, which are identical and symmetrical., one being interlaced into the other.

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REMARKS

Claims 1-11 are pending in this application with claim 1 being independent. The application has been amended to include an abstract to conform to U.S. practice. No new matter is added.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be examined. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: February 15, 2002

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**Version with markings to show changes made**

**In the abstract:**

A thin diaphragm of elongated two binary interlaced coil electroacoustic transducers includes a field replaceable sound emitting diaphragm without the need to manipulate wires. The diaphragm includes a magnetic system, a thin foil diaphragm, and a diaphragm sound emitting assembly.

The magnetic system includes an upper plate pole, two side poles, a central pole and a row of Neodymium magnet bars. Two air gaps are formed between the upper plate pole and central pole. The magnetic lines transverse the gap and create a high density field. The thin foil diaphragm carries thin aluminum conductors formatting at least one binary interlaced coil, one being built into each other, and which are situated substantially in the plane of the magnetic lines transversing the air gap. The conductors of the diaphragm are crossed by the same intensity of flux lines perpendicularly, at the totality of their length, where, the application of  $F=BLi$  gives the same force  $F$ . The diaphragm sound emitting assembly includes a frame made of non-ferrous sheet metal, on which is tensioned a vibratable very thin diaphragm of high temperature polymer on which are formatted a multiplicity of two elongated coils and of aluminum foil, which are identical and symmetrical., one being interlaced into the other.